Investigations Performed

The discovery of live ordnance was reported to the United States Army Corps of Engineers (USACE) and DTSC. In late 1996 Granite initiated investigation and cleanup activities for ordnance at the site. In response to concerns expressed by local citizens, DTSC visited the site to assess the possible hazards. DTSC made several recommendations for a thorough investigation aimed at defining the extent of ordnance and explosives and chemical contamination. On June 1, 1999, DTSC issued an Imminent and/or Substantial Endangerment Determination and Remedial Action Order requiring a complete remedial investigation/feasibility study and a clean up be performed.

A Remedial Investigation/Feasibility Study Report (RI/FS) was submitted and approved by DTSC on August 10, 2001. Included in the RI/FS, was an analysis of clean up options. A total of eight clean up options were carried forward for detailed analysis in the FS.

Ordnance and Explosives

As a result of investigation and clearance activities, a total of nine live ordnance and explosives items have been found. These items have been found in the South Valley or at the east end of the Ridge between the North and South Valleys. One geophysical scan of the majority of the Tourtelot Property was performed in 1996. The geophysical mapping identified numerous anomalies some of which could be ordnance or ordnance scrap as well as metal debris (barb wire, nails, pipe, fence posts). No additional clearance activities have been undertaken.

Surface and Groundwater

During the remedial investigation of the site, investigations were performed to assess if there are impacts to surface or groundwater. Surface water samples were collected and groundwater monitoring wells were installed. In addition, grab groundwater samples from test pits and surface seeps were obtained. The Final RI/FS concludes that surface and groundwater have not been significantly impacted. Permanent groundwater and surface water sampling locations will be established and monitored after the remediation of the known contamination to verify that the remediation was adequate to protect site waters.

Soil

Soil samples were obtained and tested at various locations across the Project Site where the Army's site activities were suspected of causing chemical impacts. The sampling technique used to obtain the soil samples employed the use of ordnance avoidance techniques. Using ordnance avoidance techniques in some cases had caused the sampling locations to be moved to less than desirable locations, but did provide an understanding of the potential contaminates and relative concentrations. Several areas have been identified as being contaminated and needing remediation in the South Valley. The flare burn area was identified as having high concentrations of metals. The open burn open detonation areas will need further evaluation after the ordnance clearance activities. The Ridge between the North Valley and South Valley had previously been excavated and used for fill mostly in the McAllister Drive land bridge. A dynamite disposal area was suspected of being located in the Ridge cut area. Some additional sampling is proposed. The North Valley has soil stockpiles resulting from the 1996 site preparation activities and the trinitrotoluene (TNT) strip area. Further results of the investigations to date are provided in the details contained in the Final RI/FS document available at the information repositories located at the Benicia Public Library and at DTSC's offices in Sacramento.

Feasibility Study

A Feasibility Study was completed to identify a range of viable alternatives. Thirteen alternatives were initially evaluated, but through the initial screening on the basis of feasibility, implementability, and cost only eight clean up options were moved forward and included in RI/FS. A total of eight clean up options were carried forward for detailed analysis in the FS. As part of full evaluation and analysis for these eight cleanup alternatives, the nine criteria specified in federal environmental regulations are used as the full evaluation. These nine criteria are:

- Overall Protection of human health and the environment;
- Compliance with applicable, or relevant and appropriate regulations and requirements;
- Long-term effectiveness and permanence;
- Reduction in toxicity, mobility, or volume of contaminataints through treatment;
- Short term effectiveness;
- Implementability;
- Cost;
- Local agency acceptance; and
- Community acceptance.

Draft Remedial Action Plan

The Draft RAP is based on the investigations performed by Granite and the USACE. The Draft RAP describes the remedial alternatives that were evaluated for the Project Site and explains the reasons for selecting the preferred alternative. The Draft RAP includes requirements to sample during and after the remedial action to confirm the contamination has been properly addressed.

The eight alternatives evaluated for the cleanup are described in detail in the Feasibility Study section of the Final RI/FS, which is available for review at the information repositories.

Alternative 1: No Action

Alternative 2: Institutional Controls and Monitoring

Alternatives 5A and 5B: Ordnance and explosives (OE) point clearance (the term "point clearance" refers to a technique used to remove metallic items detected during the geophysical survey, one at a time, using hand excavation tools) over the entire site; areawide OE clearance (the term "areawide clearance" refers to a technique used to remove metallic items detected at greater depths by scanning and point clearing soil in layers) in North Valley and Ridge areas intended for future residential use and having a potential for containing OE, as well as overburden soil at the northern edge of the D-1 lots; geophysical scanning of area wide clearance soils in lifts during placement; excavation, treatment and disposal of chemically-affected soil above remediation goals; installation of a layer of crushed bedrock over areawide clearance soils in future residential areas; institutional controls and monitoring.

Alternatives 6A and 6B: Include Alternative 5 components plus the excavation of South Valley OE Kick-Out Zone soil and placement in the North Valley and adjacent to the South Valley wetlands; with additional geophysical scanning of OE Kick-Out Zone soil in lifts during placement.

Alternatives 8A and 8B: Include Alternative 5 components plus the excavation of South Valley OE Kick-Out Zone soil and replacement in the South Valley; with additional geophysical scanning of OE Kick-Out Zone soil in lifts during placement in South Valley.

Recommended Alternative

Alternative 5A is the recommended alternative, since this alternative is OE protective, reduces the environmental and aesthetic impacts to the South Valley, includes point clearance and areawide clearance in residential areas having a potential for containing OE, and includes removal and disposal of chemically-affected soil exceeding remediation goals. Soils removed in areawide clearance would be placed in the North Valley and covered with a minimum of 14 feet of OE-free crushed bedrock.

Institutional controls would be applied to limit future excavation in currently paved portions of the McAllister Drive Land Bridge and D-1 paved areas and in the areas of the South and North Valley zoned for open space use. Additional groundwater monitoring wells would be installed at the east and west ends of the North Valley and at the east end of the South Valley to monitor groundwater in the alluvium and bedrock. In addition, water quality sampling will be performed on water from the North Valley subdrain system and surface seeps and South Valley surface water for a specified period.

Draft Environmental Impact Report

The Draft EIR has been prepared by the DTSC, as lead agency, in accordance with the California Environmental Quality Act (CEQA). The Draft EIR addresses potential environmental impacts resulting from or related to the proposed Tourtelot remediation. The Project Site subject to remediation includes parcels commonly referred to as the Tourtelot Property, as well as portions of some adjoining properties. The remediation involves the characterization, treatment, and removal of OE and chemically contaminated soil at the Project Site. Verification monitoring will also be conducted for groundwater

The Draft EIR contains an analysis of feasible ways to avoid or minimize significant environmental effects of the proposed project, describes a range of reasonable project alternatives, and discusses growth-inducing and significant cumulative impacts from the proposed project, along with other topics required under CEQA.

Future Activities

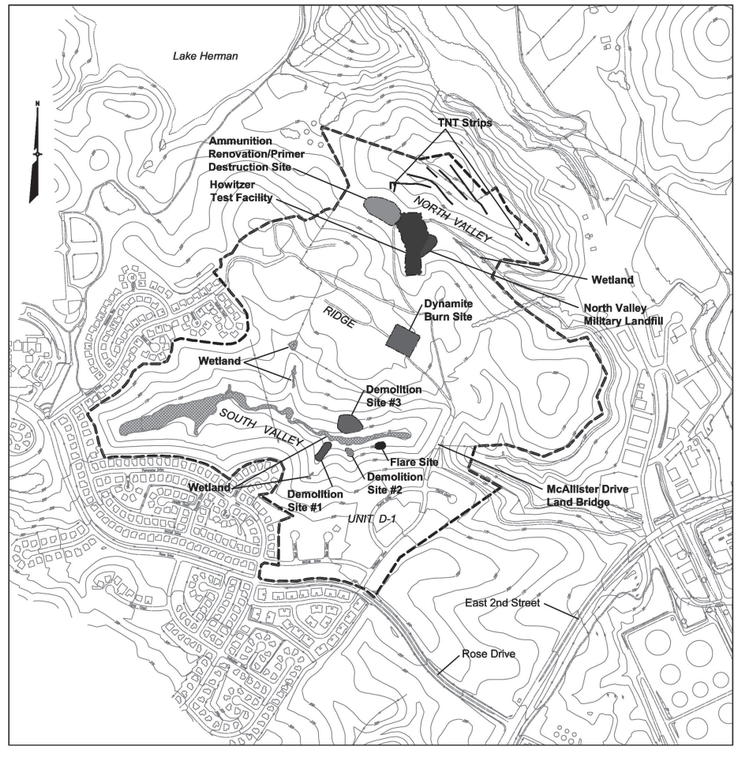
At the close of the public comment period, a response to comments document will be prepared by DTSC and sent to all commentors. It is anticipated that the Draft RAP will be finalized in November 2001 following the certification of the Draft EIR. Cleanup activities are scheduled to begin in late 2001. If there are significant changes to the Draft RAP or Draft EIR, DTSC will conduct another public meeting and comment period. Once the final remedy is selected, DTSC will place a public notice of the selected remedy in the local newspaper.

Information Repositories

The Draft RAP and Draft EIR, along with other project documents are available for public review at the following locations:

Benicia Public Library
150 East L Street
Benicia, CA 94510
(707) 746-4343

Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, CA 95826
(916) 255-6684



For More Information

DTSC staff is available to answer questions and discuss the Draft RAP and Draft EIR. Please contact:

Jim Austreng
Project Manager
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, CA 95826-3200
(916) 255-3702
(916) 255-3734 Fax

Roman Racca
Public Participation Specialist
8800 Cal Center Drive
Sacramento, CA 95826-3200
(916) 255-6684

DTSC Media Contact:
Ron Baker
Public Information Officer
1001 I Street
Sacramento, CA 95812
(916) 324-3142

Mailing List

If you did not receive this fact sheet directly in the mail and would like to be added to the Toutelot Project mailing list, please complete this coupon and return it DTSC, attention:

Roman Racca
8800 Cal Center Drive
Sacramento, CA 95826

Name _____

Address _____

City _____

State _____ Zip _____

Phone _____

NOTICE TO HEARING IMPAIRED

TDD users can obtain additional information by using the California State Relay Service (1-888-877-5378) to reach Roman Racca at (916) 255-6684.

Please note: Mailing lists are public information and may be released under the Public Records Act.

Roman Racca
8800 Cal Center Drive
Sacramento, CA 95826

Inside: Information on the proposed cleanup for the Tourtelot Cleanup Project.

FACT SHEET
SEPTEMBER
2001

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

Department of Toxic Substances Control

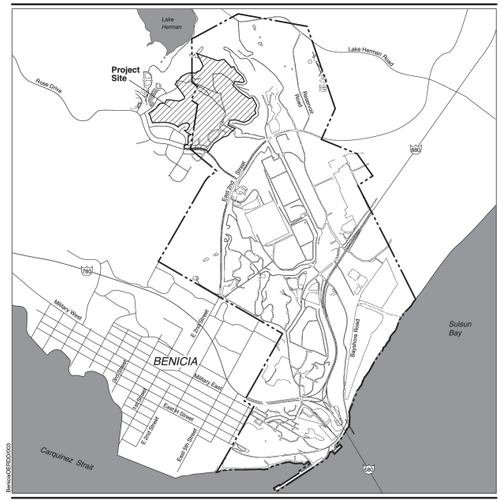
It is DTSC's mission to protect public health and the environment from harmful exposure to hazardous substances.

TOURTELOT CLEANUP PROJECT

Benicia, California

Introduction

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) has prepared this fact sheet to provide information on the proposed cleanup alternative for the Tourtelot Cleanup Project (Project Site) in Benicia, California (See Project Location Map on this page). DTSC has prepared a Draft Remedial Action Plan (Draft RAP) to address contamination at the Project Site. This fact sheet summarizes the documents available for review and describes how you can participate in the DTSC decision-making process.



Site Description and Background

The Project Site (See Figure on page 3) includes the Tourtelot Property which consists of approximately 200 acres of undeveloped grassland located in the northwest corner of the former Benicia Arsenal, north of Rose Drive and west of East 2nd Street. The Tourtelot Property was leased to the U.S. Army from 1944 to 1960 and for that period of time was part of the former Benicia Arsenal. From 1945 to 1960, the Army conducted several Arsenal-related activities on the property, including artillery testing, demilitarization, and demolition of damaged and obsolete munitions.

After the Arsenal was closed in 1964, the Tourtelot Property changed hands and plans for private residential development were initiated. In 1990, grading activities were conducted on the Project Site. Soils were cut from the Ridge, the McAllister Drive Land Bridge was constructed, and the D-1 lots were graded. In mid-1996, during the initial site preparation activities associated with the planned housing development, concrete-filled howitzer shells were unearthed within the boundaries of the Tourtelot Project. During further investigations live ordnance were unearthed.

"The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website at www.dtsc.ca.gov."

Community Input Welcome & Public Meeting

DTSC will hold a 45-day public comment period on the Draft RAP and the Draft Environmental Impact Report (Draft EIR) from September 12, 2001 to October 29, 2001. All comments will be carefully considered by DTSC prior to making a final decision on these documents. The Draft RAP and Draft EIR are available for public review at the information repository located at Benicia Public Library, Reference Section and at the DTSC Sacramento office listed below. To review documents at DTSC, please call (916) 255-3758 for an appointment or visit DTSC's website @ www.dtsc.ca.gov. Written comments must be received by the close of the comment period on October 29 and should be sent to:

Jim Austreng, Project Manager
Department of Toxic Substances Control
8800 Cal Center Drive,
Sacramento, CA 95826
Email: jaustren@dtsc.ca.gov

During the public comment period, a public meeting will be held to receive oral and written comments on the Draft RAP and Draft EIR . The public is encouraged to review and comment on the draft documents and participate in the public meeting scheduled for:

September 25, 2001
7:00pm - 9:00pm
Benicia City Hall
250 East L Street, Benicia, CA
Phone: (707) 746-4216